REMARKS

Claims 1, 3-17, 19, 20, and 22-38 are pending.

With entry of the instant amendment claims 1, 14, 15, 16, 19, 23, 24, 25, 32, 33, 34, 36, 37, and 38 have been amended to recite a *Drosophila* RDGC phosphatase. This amendment adds no new matter. Support for the amendment can be found, *e.g.*, on page 3, lines 3-5 and on page 8, lines 16-25. These passages disclose *Drosophila* RDGC phosphatase, the sequence of which is known and provided in Steele, *et al.*, Cell 79:669-676, which is incorporated by reference.

For convenience, the rejections will be addressed in the order presented in the final Office Action.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 1, 2-17, 19, 20, and 22-38 were rejected as allegedly lacking adequate written descriptive support in the specification. Although applicants disagree for reasons of record, in order to expedite prosecution, the claims have been amended to recite *Drosophila* RDGC phosphatase. Applicants believe that this obviates the rejection and therefore request its withdrawal.

Rejection under 35 U.S.C. § 103

Claims 1, 2-17, 19, 20, and 22-38 were rejected as allegedly unpatentable over Byk *et al.* in view of the two cited Zuker references. The rejection alleges that it would have been obvious to have modified the method of Byk to use recombinant RDGC; and further, that in light of Zuker, it would have been obvious the use cells or transgenic organisms in the method of Byk instead of membrane preparations. Applicants respectfully traverse.

The current invention provides a method of screening for modulators of GPCR signal transduction. Byk *et al.* disclose evaluation of phosphorylation states in membrane systems. This is an *in vitro* system that does not directly evaluate the role of RDGC phosphatase

in modulating rodopsin acitvity. Thus, Byk *et al.* do not establish a biological role of RDGC phosphatase in GPCR-mediated signal transduction.

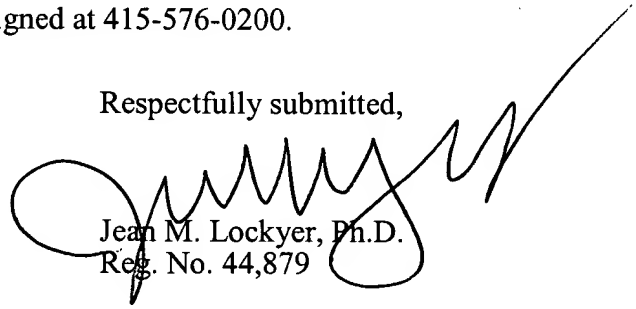
Further, Zuker *et al.* (reference AG) teach that *rdgc* presumably dephosphorylates rhodopsin (*see, e.g.,* the legend to Figure 1). This also does not "clearly establish that the dephosphorylation activity of RDGC is an essential step in the GPCR-mediate (sic) signal transduction pathway" as suggested by the Examiner (page 9 of the final Office Action, last complete sentence). Therefore, prior to Applicants' elucidation of an *in vivo* biological role of RDGC phosphatases, there was no basis for one of skill in the art to have been motivated to use RDGC phosphatases as a component of a screening system to identify modulators of GPCR-mediated signal transduction. Thus, the argument does not establish a proper case of *prima facie* obviousness. Applicants therefore respectfully request withdrawal of the rejection.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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